

## Patent Claims

1           1.       A fuel injection nozzle having a cooling duct  
2       which is arranged in the combustion chamber side end region of  
3       the housing, characterized in that the cooling duct (6) is  
4       arranged closer to the nozzle needle bore (2) than to the  
5       outside of the housing (1) and has a cross sectional face whose  
6       width is dimensioned so as to be at most equal to the height  
7       extending in the axial direction (A-A) of the nozzle.

1           2.       The fuel injection nozzle as claimed in claim 1,  
2       characterized in that the width of the cooling duct (6) is 0.1  
3       to 0.9 times the height.

1           3.       The fuel injection nozzle as claimed in one of  
2       the preceding claims, characterized in that the width of the  
3       cooling duct (6) is approximately 0.25 times the height.

1           4.       The fuel injection nozzle as claimed in one of  
2       the preceding claims, characterized in that the cooling duct (6)  
3       extends as far as the height of the nozzle needle seat (3) on  
4       the combustion chamber side.

1           5.       The fuel injection nozzle as claimed in one of  
2 the preceding claims, characterized in that the cross sectional  
3 face of the cooling duct (6) is approximately twice the cross  
4 sectional face of the cooling medium inflow line (7).